UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,900	06/13/2006	Arnaud Bailleul	4590-532	5003

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EXAMINER
DAO, THUY CHAN

ART UNIT	PAPER NUMBER
2192	

MAIL DATE	DELIVERY MODE
06/13/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr><td rowspan="3">Office Action Summary</td><td>Application No.
10/582,900</td><td>Applicant(s)
BAILLEUL, ARNAUD</td></tr>
<tr><td>Examiner
Thuy Dao</td><td>Art Unit
2192</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 May 2011</u>.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 and 3-10</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1 and 3-10</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>09 December 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☒ All b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the Applicant's reply filed on May 3, 2011.

2. Claims 1 and 3-10 have been examined.

Response to Arguments

3. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action.

Examiner notes that in light of the instant application, the claimed element "constraint" does not exclude a requirement/description:

> [0015] A requirement is represented in the UML model
> (with the "RHAPSODY" modeling tool from the company I-
> LOGIX) by a UML constraint called a "UML Requirement". An
> example thereof has been represented in FIG. 1.

Claim Objection

4. Claims 1 and 3-10 consistently recite "an element of the UML model" and later recite "the element".

However, line 6 of claim 1 recites "the created UML element".

Examiner respectfully requests Applicant to amend the phrase to be - -the [[created UML]] element- - to be consistent with all other locations.

5. Also in claim 1, please amend the phrase to be - -systematically filling in [[the]] an upward requirement- -.

Claim Rejections – 35 USC §102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1, 3, 4, and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Rhapsody-4.1 (art of record with a new ground of rejection, "Essential Rhapsody in C++" version 4.1, published January 1, 2003).

Claim 1:

Rhapsody-4.1 discloses *a method of requirements traceability based on a UML (Unified Modeling Language) model, comprising the steps of:*

using a graphics interface (e.g., pages E1-8 to E1-11 and E2-8, Rhapsody user interface as a graphics interface)

when creating an element of the UML model (e.g., page E2-8 to E2-10, creating project "CashRegister", which is a UML model having UML use case diagrams, UML use cases, UML actors)*,*

opening a "add new" function of a modeling tool and (page E2-10, opening function AddNew)

using a "constraint" option therein (page E2-10, add/create new Use Case Diagram)

for attaching a requirement immediately on the created UML element in said graphics interface (pages E2-10 to E2-13 and E15, Use Case Diagrams have required elements Actors, Use Cases, Descriptions) *and*

systematically filling in the upward requirement which has given rise to the creation of the element (pages E2-8 to E2-12, required elements Actors, Use Cases, Descriptions are systematically embedded/filled in to the creation of "CashRegister").

Claim 3:

Rhapsody-4.1 discloses *the method as claimed in claim 1, wherein when an element of the model is deleted, all the UML requirements attached to this element are*

likewise deleted (e.g., page E2-4 to E2-12, when deleting "CashRegister", the entire model will be deleted).

Claim 4:

Rhapsody-4.1 discloses *the method as claimed in claim 3, wherein all the UML requirements attached to all the elements attached to said element are likewise deleted* (e.g., page E2-8 to E2-14, when "CashRegister" is deleted, its required elements is also deleted with all attached requirements/constraints).

Claim 7:

Rhapsody discloses *the method as claimed in claim 1, wherein when an element of the model is deleted, all the UML requirements attached to this element are likewise deleted* (e.g., page E2-4 to E2-8 and E2-10 to E2-13, a use case/description/actor is deleted from the entire model).

Claim Rejections – 35 USC §103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5, 6, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhapsody-4.1 in view of Kobryn ("Visual Requirements-Driven Development with UML 2.0").

Claim 5:

Rhapsody-4.1 does not explicitly disclose *the method as claimed in claim 1, comprising exporting the UML requirements to a requirements management tool so as to ensure therein their management and their traceability.*

However, in an analogous art, Kobryn further discloses *the UML requirements are exported to a requirements management tool so as to ensure therein their management and their traceability* (e.g., page 26, 29, and 31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Kobryn's teaching into Rhapsody-4.1's teaching. One would have been motivated to do so to "navigate to DOORS" as suggested by Rhapsody-4.1 (e.g., page E1-11) and perform automate validation and verification in DOORS as suggested by Kobryn (e.g., page 26, 29, and 31).

Claim 6:

Rhapsody-4.1 does not disclose *the method as claimed in claim 5, wherein, in the course of the development of the model, the UML requirements are exported to the requirements management tool each time that this model has attained a stable state.*

However, in an analogous art, Kobryn further discloses *the UML requirements are exported to the requirements management tool, in the course of the development of the model, each time that this model has attained a stable state* (e.g., page 26, 29, and 31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Kobryn's teaching into Rhapsody-4.1's teaching. One would have been motivated to do so to "navigate to DOORS" as suggested by Rhapsody-4.1 (e.g., page E1-11) and iterate testing/validation/verification upon the granularity of the requirements as suggested by Kobryn (e.g., page 26-27, 29, and 31).

Claims 8-10:

Claims 8-10 depend on claims 6, 3, and 4, respectively, which recite(s) the same limitations as those of claim 5, wherein all claimed limitations have been addressed

and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claim(s), it also teaches all of the limitations of claims 8-10.

Conclusion

10. Any inquiry concerning this communication should be directed to examiner Thuy (Twee) Dao, whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/   (Twee)
Primary Examiner, Art Unit 2192